Food, Nutrition & Diet Series

Lecture 2:

Metabolic Diseases



By

Dr Sultan Mahmood

PhD Nutrition

At

Faiz Ghar, 18-Jul-2011

Malnutrition

is the condition that results from taking an imbalanced diet in which certain nutrients are lacking, in excess (too high an intake), or in the wrong proportions

The **World Health Organization** cites malnutrition as the greatest single threat to the world's public health

In malnutrition,

(1) Emergency measures include providing

- ❖Deficient micronutrients through fortified sachet powders, or
- ❖Directly through food supplements.

(2) Long term measures include investing in modern agriculture in places that lack them, such as fertilizers and irrigation, which has largely eradicated hunger in the developing countries.

List of Metabolic Diseases

A: DEFICIENCY DISORDERS

Proteins/fats/carbohydrates

- Kwashiorkor
- Marasmus
- Mental retardation

Dietary Minerals

- *Calcium deficiency*
  - Osteoporosis
  - Rickets
- *Iodine deficiency*
  - Goiter
- *Selenium deficiency*
  - Keshan disease
- *Iron deficiency*
  - Iron deficiency anemia
- *Zinc deficiency*
  - Growth retardation

Dietary Vitamins

- *Thiamine (Vitamin B1) deficiency*
  - Beriberi
- *Niacin (Vitamin B3)*
  - Pellagra
- *Vitamin C*
  - Scurvy
- *Vitamin D*
  - Osteoporosis
  - Rickets

B: OVER-FED DISORDERS

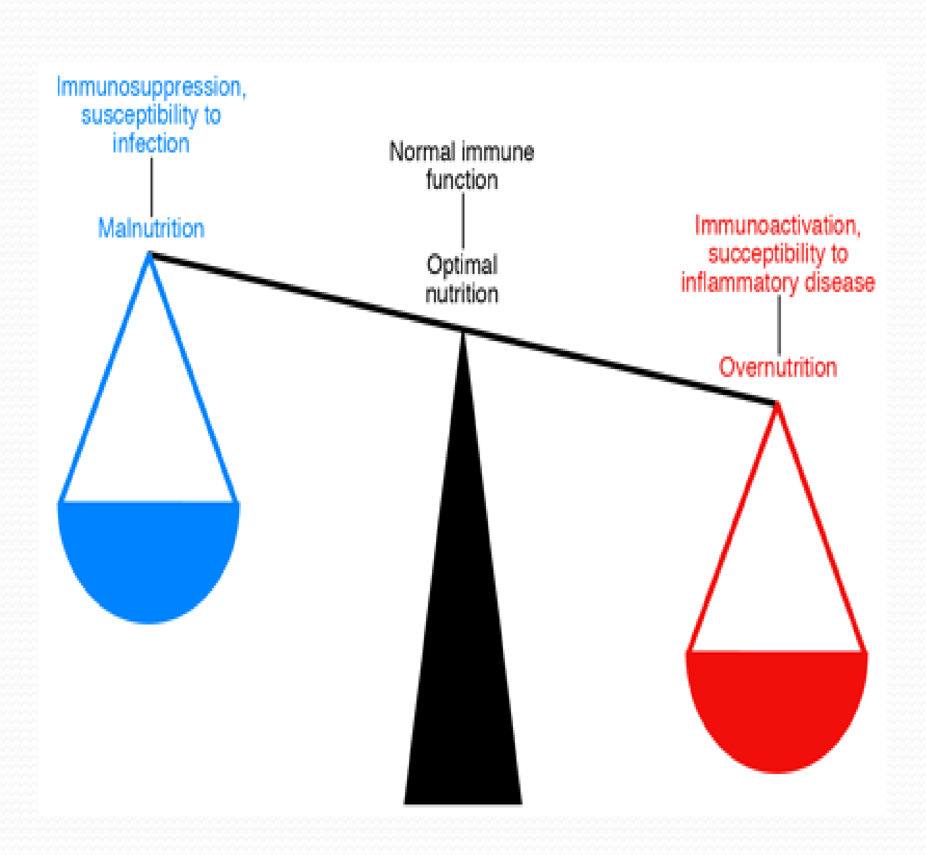
- Obesity
- Acidity
- Cardio-Vascular Diseases
- Diabetes
- Hypertension
- Arthritis / Gout
- Brain Stroke, and many more…

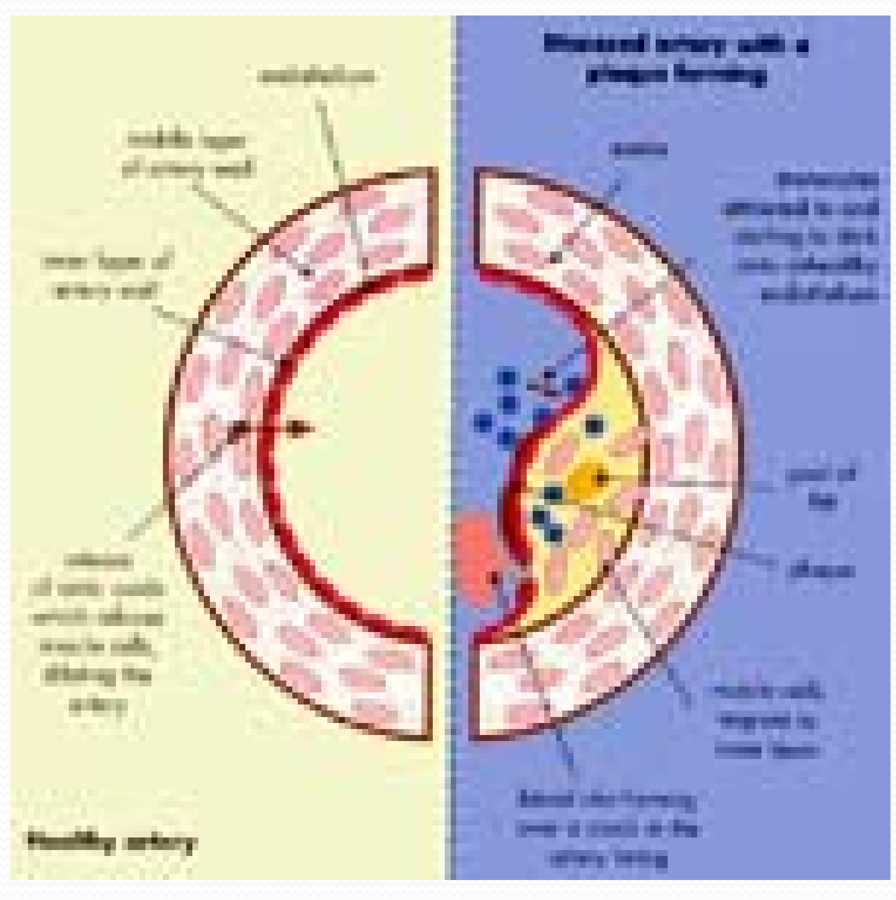
Over-Nutrition Results in Obesity



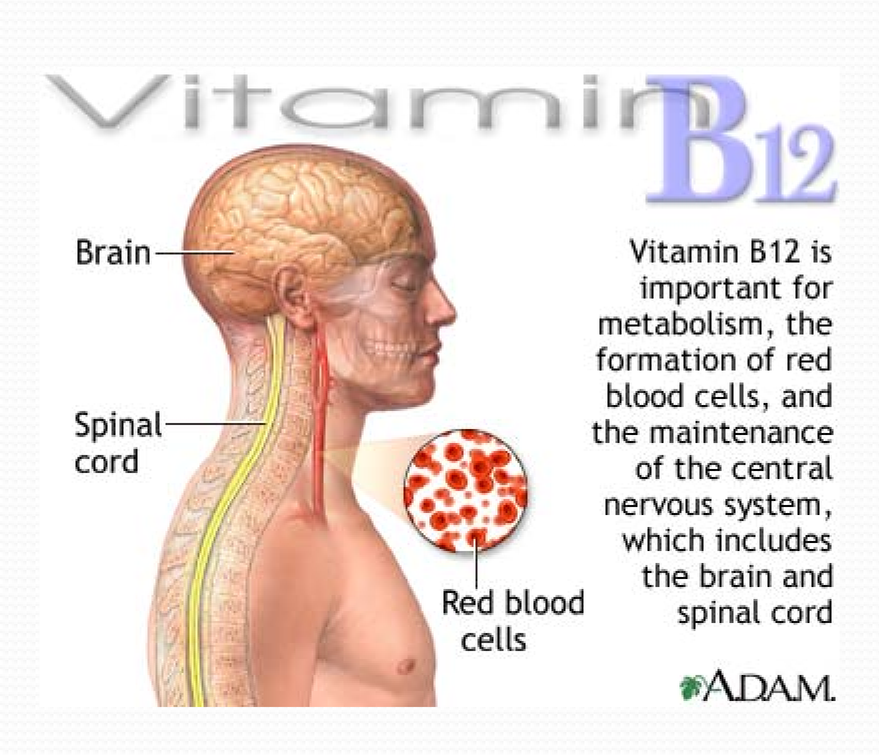


Over-Eating accelerates Heart Diseases *(see an Atherosclerotic Artery)*





Alcoholism stops Vitamin Absorption





Use Organic Foods to avoid Psychological Problems



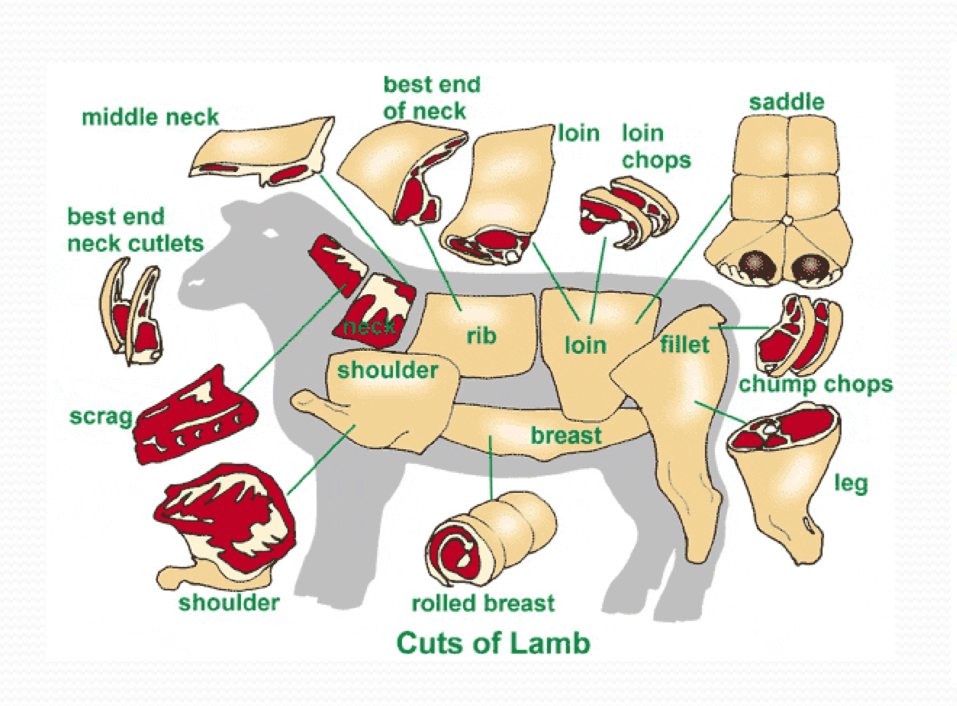


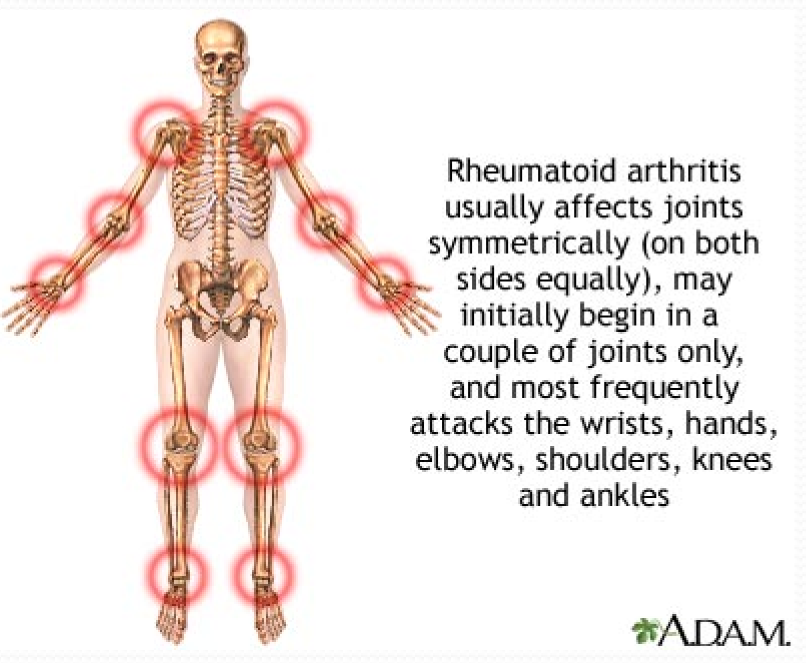
If over-feeding to children is **LOVE** then face the consequences





Over-Eaten Meat destroys Joints





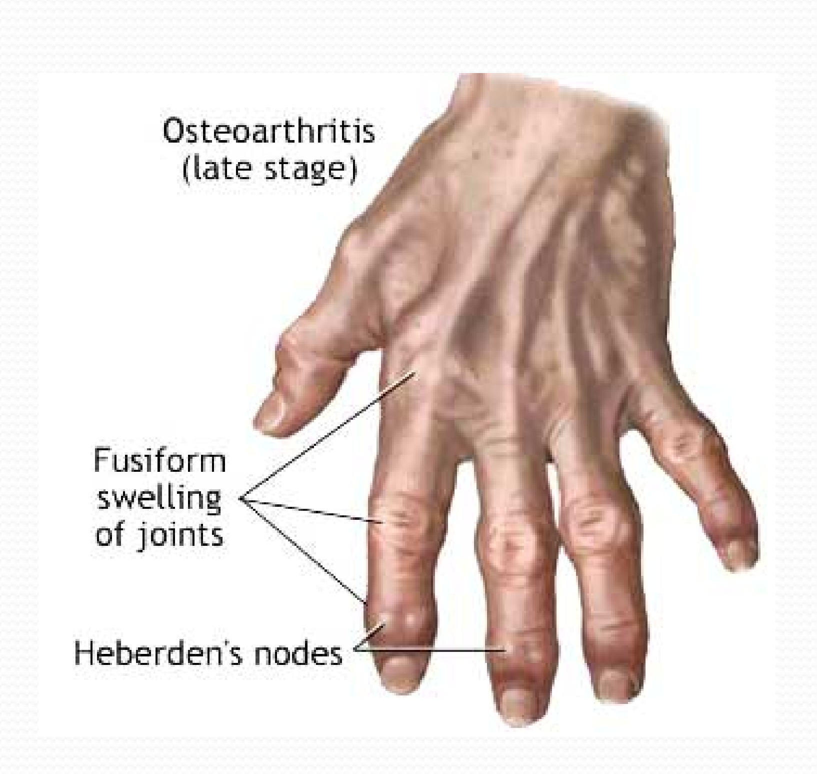
Iodine Deficiency Promotes Goiter

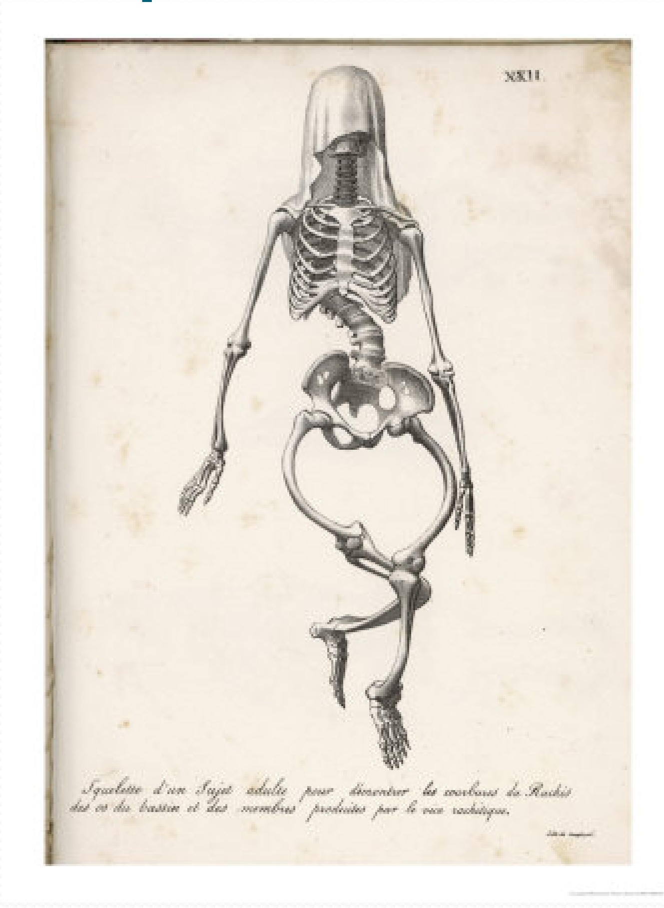




A woman Suffering from Goiter due to insufficient iodine in diet.

Lack of Calcium & Vit-D invites Arthritis & Osteoporosis



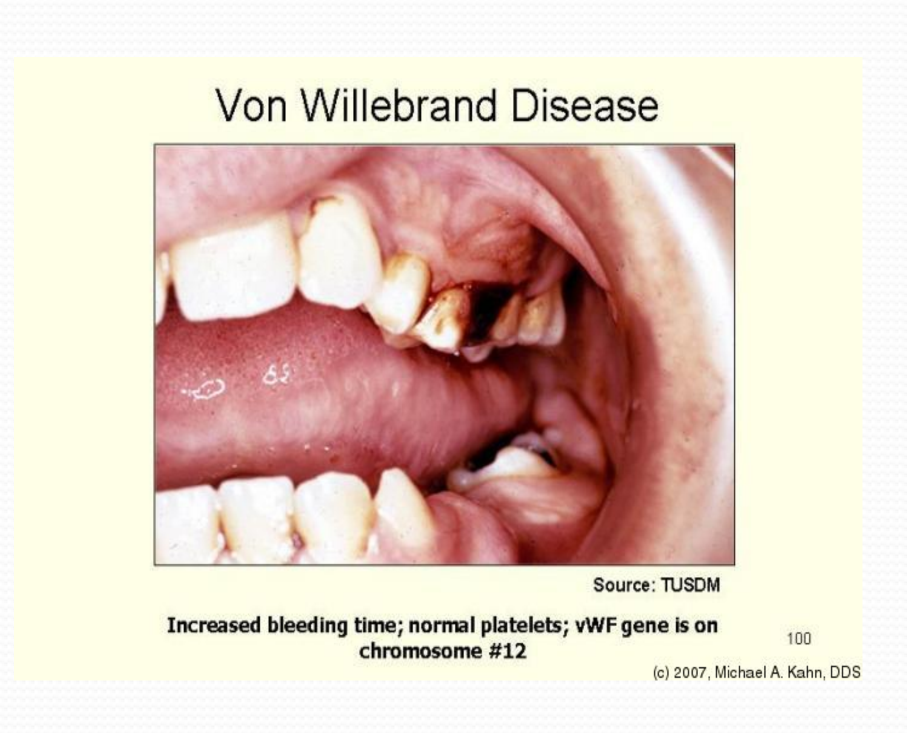


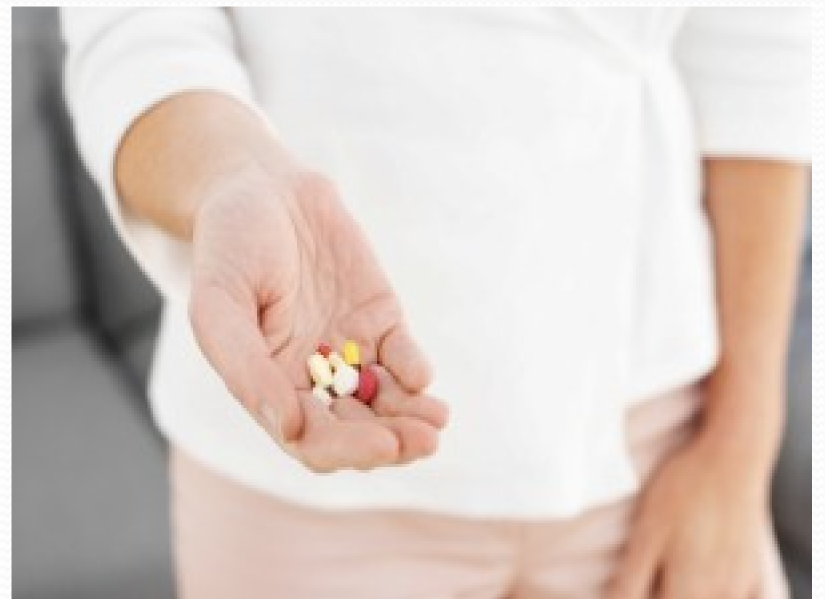
Prefer Food over Supplements





OK – You may opt for Supplements if disorder has gone beyond control





Choose Your Life Style





Be Within the Rational Limits





Go for wise eating





Think – Which is Better?





Questions???